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PRINCE GEORGE REGIONAL HOSPITAL

PROFILE, CHALLENGES, ROLE AND STRATEGIC DIRECTION

A Summary Report

of the

Prince George Regional Hospital Study

Consolidated by the Ministry of Development, Trade and Tourism
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The Stage II report was contracted with the Coopers and Lybrand Consulting Group. Chris Stanley-Jones produced this summary for use by the committee and for public distribution. Consisting of paraphrased material often directly quoted from the consultant's work, this acknowledgement serves to replace the use of quotations and footnotes which may otherwise be expected. As of April 15, 1991, the Ministry of Regional and Economic Development became the Ministry of Development, Trade and Tourism.

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INTRODUCTION AND EXECUTIVE SUMMARY

The Cariboo Development Region (CDR) Health Care Study was commissioned in November 1988. Stage I of the study was delivered during October 1989. This report constitutes Stage II of the study. Stage II, at the request of the Prince George Regional Hospital (PGRH), examines the hospital's role and develops a strategic action plan to meet the challenges facing it.

The study was funded by the Prince George Regional Hospital, the Fraser-Fort George Regional Hospital District, and the Ministry of Regional and Economic Development.

The report begins with a profile of the hospital, its services and utilization. It examines some significant characteristics of the communities served by PGRH, including patterns of referral (see the map on page 10). Section 5 examines the trends and challenges facing the hospital, including demographic and health care trends. The role of the hospital and several strategic initiatives are developed. The strategic initiatives are accompanied by actions plans and the final chapter provides a two-year critical path of recommended actions.

Some of the challenges facing the hospital include: increasing consistency in the offering of clinical services; marketing the services offered; increasing emphasis on regionalization of health care services and taking the leadership role; providing health care services to a population with an increasing proportion of elderly; managing rising health care costs; serving a population with increasingly sophisticated demands for health care; providing recruitment and retention of specialized medical, nursing and other professional and support staff; and meeting the continuing education needs.

The above challenges will generate a need for the Prince George Regional Hospital to clearly define its community and regional role. The strategic initiatives required to meet this role include: enhancing the co-ordination of the delivery of services and programs by initiating the creation of a regional health services co-ordination council; identifying specific programs that can be developed as centres of excellence; re-focusing the hospital's community role in relation to acute, ambulatory, rehabilitation and extended care programs; continuing to explore and develop recruitment and retention; and keeping abreast of demographic changes and their impact.

The consulting team conducted numerous interviews with members of the hospital board, management, and medical staff. Interviews were also held

with several representatives of the local community, Ministry of Health, and related health care agencies. The study received guidance through consultation with members of the Prince George Regional Hospital Internal Strategic Planning Committee. The hospital staff administered a mail survey of referring physicians in surrounding communities.

PROFILE OF THE HOSPITAL

2.1 Introduction

Prince George Regional Hospital (PGRH) is the major regional referral hospital in the northern interior of British Columbia, serving a referral catchment population totalling approximately 200,000. It also serves as the primary or community hospital for the residents of the City of Prince George and surrounding district, a population estimated between 80,000 and 100,000.

The initial stage of the present facility was constructed in 1960 with 125 acute care beds. In 1974, the west wing addition was opened with 135 new beds, including a 10-bed ICU/CCU. Construction of Jubilee Lodge, a 72-bed extended care unit commenced in 1977. This was followed by renovations to the nursery and an expanded power house in 1980, diagnostic and treatment facilities additions during 1980 - 1982, and a 26-bed rehabilitation unit during the fourth expansion stage.

Currently, PGRH is approved by the Ministry of Health for a complement of 296 acute care/rehabilitation beds, 72 extended care beds, and 44 nursery bassinets. PGRH also operates 37 beds for substance abuse treatment -- 16 for detoxication and 21 for a residential substance abuse program. PGRH is the largest single health care facility in the region.

2.2 Organization

Board of Trustees. The hospital is operated by the Prince George and District Hospital Society, incorporated under the laws of British Columbia. Its affairs are directed by a board of trustees consisting of 10 volunteers. Six are elected by the society membership and four are appointed. The City of Prince George, the Fraser-Fort George Regional Hospital District, the Auxiliary to the Prince George Regional Hospital and the Ministry of Health each appoint one member. Physicians active at the Prince George Regional Hospital may not serve on the board, but are entitled to advisory representation at its meetings through the chief of staff and the president of the medical staff.

Management. The organization is led by an executive director. The senior management team includes an associate and four assistant directors along with a part-time medical director. Inter-

departmental co-ordination is aided by a number of management committees.

Medical/Dental Staff. The medical staff, all duly qualified practitioners, numbered 110 in 1990. The dental staff is comprised of approximately 26 qualified dentist. Most physicians are private practitioners providing medical care to their own patients under "fee-for-service" arrangements with the BC Medical Services Commission. As board-appointed medical staff, they are also subject to the rules and standards of the hospital. The board appoints a chief of staff, upon recommendation of the medical staff, to be responsible to the board for the quality of medical care and for organization of clinical services. The medical staff are currently organized into nine departments: anaesthesia, general practice, internal medicine, laboratory medicine, medical imaging, obstetrics, paediatrics, psychiatry, and surgery.

2.3 Services

Overview. The Prince George Regional Hospital provides an extensive range of health care services. PGRH is concerned with diagnostic and treatment services in support of medical care to meet the health care needs of the community and the surrounding region. As with other acute care hospitals, PGRH is increasingly becoming involved in sophisticated diagnostic and treatment services offered on an out-patient basis.

Prince George Regional Hospital, acknowledged to be a regional referral hospital, must have extensive capabilities to serve most of the acute care needs of its own moderately large local community, as well as many specialized care requirements beyond the capacity and routine needs of smaller hospitals. A regional referral hospital is expected to provide a range of services beyond that otherwise warranted by the size of the population served. This situation clearly faces PGRH.

In total, there are 296 acute/rehabilitation in-patient beds at PGRH grouped into units by clinical service. The number of beds allocated to each is: medical (97); surgical (88); paediatrics (32), obstetrics (34); intensive care/coronary care (10); psychiatric (20); and rehabilitation (15). In addition, PGRH has 72 extended care beds, 37 substance abuse beds and 44 nursery bassinets, 112 of which are in the neonatal intensive care unit.

Obstetrics and Neonatal. The maternity unit has 34 beds and there is a six-suite labour delivery unit. Patient days of care in obstetrics declined in 1989-90 to 9,342 from 10,749 four years earlier. Average lengths of stay (ALOS) tended to increase during 1986-87 to 1988-89 from 5.0 to 5.5 days for deliveries; from 2.8 to 3.3 days for undelivered patients; and from 2.0 to 2.1

days for aborted patients. Maternity unit annual occupancy rates ranged between 73.8 and 80.7 per cent over the three years.

The neonatal services include 32 bassinets for newborns and a 12 isolette Level II Neonatal Intensive Care Unit. Patient days in the neonatal intensive care unit increased from 3,436 to 3,888 days during 1985-86 to 1988-89. The ALOS for the combined nursery increased from 4.8 to 5.5 days over the period 1986-87 to 1988-89.

Paediatrics. Acute care for children is provided in a 26-bed paediatric ward and a six-bed special care unit. Admissions in 1987-88 included 1,437 for general medicine, 928 for surgery, and 218 for the special care unit.

Medicine. This is the largest clinical service area with 97 beds in four separate wards of the hospital, including a 15-bed step-down unit for cardiac care. There is also a combined intensive care/coronary care unit of 10 beds offering all aspects of haemodynamic monitoring and care of multiple-trauma patients. There were 5,570 admissions for general adult medicine in 1987-88, along with 708 to the combined ICU/CCU and 215 to the step-down unit (SDU). Total patient days (including the SDU and emergency department) rose slightly from 30,155 in 1985-86 to 31,914 in 1988-89, before dropping by almost one quarter to 24,538 in the following year due to bed closures. Annual occupancy rates for medicine were highest among acute care services, exceeding 95 per cent from 1986 to 1989. The two most common diagnoses for admissions to medical units from 1986-87 to 1988-89 were abdominal pain and acute myocardial infarction.

Surgery. In terms of patient service volume, surgery is the second-largest clinical service area in the hospital, with 88 designated beds in three wards, including one combined medical/surgical ward. Related specialist medical staff include four general surgeons, two urologists, three orthopaedic surgeons, two plastic surgeons, one otolaryngologist, three ophthalmologists, four anaesthetists, and two obstetrician/gynaecologist.

There were 6,713 admissions for adult surgery in 1987-88. Average length of stay in general surgery was between 6.2 and 6.6 days from 1986-87 to 1988-89. Annual occupancy rates for designated surgical beds ranged between 81 and 88 per cent during the same period.

Psychiatry. There are 20 designated adult psychiatric beds in a single ward at PGRH, supported by six staff psychiatrists, who are associated with the School of Medicine at University of British Columbia. There were 632 psychiatric in-patient admissions in

1987-88. The average length of stay has been between 10.7 and 11.0 days. The annual occupancy rate has also ranged narrowly between 82.8 and 86.2 per cent.

Rehabilitation. A 15-bed rehabilitation unit became fully operational in 1988-89. Patient days of service totalled 3,110 in 1988-89 and 3,479 the next year. Average length of stay was 50.2 days in 1988-89 while the annual occupancy rate was only 56.8 per cent for this developing service. During 1986-87 to 1988-89, in-patient physiotherapy attendances grew by 14.4 per cent to 19,919. In occupational therapy, the level of service more than tripled in the three years, to 10,156 attendances in total, serving acute care, extended care and psychiatry.

Extended Care. The Jubilee Lodge provides 72 beds for patients, usually elderly, with chronic disabilities requiring 24-hour nursing care and medical consultation. This unit has a high annual occupancy rate ranging between 96.8 to 98.8 per cent. There was a waiting list of 31 persons seeking placement at the Jubilee Lodge as of March 1989.

Emergency. The emergency department provides 24-hours service with hospital staff and physician coverage by rota of general practitioners with advanced life support certification. In 1989-90, there were 45,745 out-patient visits to the emergency service. In-patient services have been provided in 'holding beds' adjacent to the emergency department. These patients, along with emergency department patients, accounted for 784 patient days in 1989-90, comprised of 212 surgical and 572 medical patient days.

Laboratory and Medical Imaging. A wide range of medical laboratory services are available, including: anatomic pathology; haematology and blood banking; biochemistry; and microbiology. In-patient workload increased from 1.586 million units to 2.183 million units during 1986-87 to 1988-89, a rise of 37.6 per cent which was part of an overall net increase in units of 22.8 per cent.

Tests conducted under the auspices of medical laboratory services, but not reflected in the preceding statistics, include ECG and cardiac stress tests, pulmonary function and EEG/EMG testing. PGRH provides category III regional laboratory services and support to 11 health care facilities in the region.

Medical imaging services include general radiography, whole body computed tomography (CT), fluoroscopy, mammography, ultrasound, angiography, angioplasty (non-cardiac), and nuclear medicine. Workload records for the department during 1986-87 to 1988-89 indicate that diagnostic examinations for in-patients remained almost constant,

ending at 20,174, while out-patient examinations rose by 14.7 per cent to 30,604. For 1988-89, out-patients comprised 60.3 per cent of the total 50,778 examinations.

Ambulatory Services. The hospital provides a number of services on an non-in-patient basis, including those through the emergency service, day-care surgery and out-patient clinics. These out-patient clinics include diabetic day care, renal dialysis, chemotherapy, enterostomal therapy, respiratory therapy, dietetic counselling, occupational therapy, including orthotics and prosthetics, physiotherapy, psychiatry out-patient counselling and general medical and surgical out-patient examinations and treatments. The overall trend shows an increase in out-patient services in recent years.

Education, Teaching and Research. The PGRH Department of Psychiatry has a formal affiliation with the faculty of medicine, University of British Columbia. Its chief is an associate professor and assists with development of mental health services in the north. The UBC faculty of medicine and PGRH also have provision for a three-month practicum by senior surgery residents and brief visits by ophthalmology residents. Approval is pending for a family practice residency program. The development of the new University of the Northern British Columbia in Prince George presents further opportunities for PGRH to provide teaching and clinical support for education of health care professionals.

The hospital provides clinical services and supervision for health care education students in a number of areas including nursing, laboratory, medical imaging and occupational therapy.

2.4 Utilization

In-patient Volume by Clinical Service. Patient days as an overall indicator of volume by clinical service have shown that medical and surgical services accounted for the largest volume of services at about 60 per cent. Maternity, nursery and paediatrics follow with about 10 per cent of the volume. Psychiatry makes up 6-7 per cent, with the remainder belonging to the intensive care-coronary unit and the rehabilitation unit.

Admissions by Sex and Age of Patient. Females consistently outnumber males among in-patient admission, making up 56 to 58 per cent of the total. In the distribution of admissions by age of patient, it is most notable that the number and proportion of patients aged 65 or more increased from 1,895 (13.8 per cent) to 2,214 (16.2 per cent) during the period 1986-87 to 1988-89.

Admissions by Locations of Physician and Clinical Service. Most admissions were patients from Prince George with

about one-quarter coming from the care of physicians in other areas. These latter cases are likely indicative of the regional referral service role of the hospital, while the former represent community service. Admissions from Prince George physicians were evenly split between general practitioners and specialists, while about 80 per cent of those from other areas were admitted by specialist. Considering admissions by clinical service area, the largest were adult surgery (31.6 per cent of total hospital admissions), adult medicine (27.3 per cent) and obstetrics (12.3 per cent).

PROFILE OF COMMUNITIES SERVED BY PRINCE GEORGE REGIONAL HOSPITAL

3.1 Overview and Population Base

Prince George Regional Hospital is the largest acute care institution in the northern interior of British Columbia and provides essential hospital services to residents of a huge geographic area. This vast catchment area may be considered in two parts -- a local community for primary service and a larger, regional catchment for secondary or referral service. Residents of Prince George and vicinity regard PGRH as their community hospital.

The local catchment area would include those living outside Prince George who would attend PGRH sooner than the hospital in the next community beyond, be that Mackenzie, McBride, Quesnel or Vanderhoof. The catchment population is between 80,000 and 100,000. For discussion, it may be considered equivalent to Local Health Area (LHA) 57.

The regional catchment area would extend to include northern interior residents who would primarily seek hospital care in their local community. The potential for referral lies in the perceived accessibility of needed superior consultation and service at PGRH. This regional referral catchment area is taken to comprise seven local health areas (LHAs): Prince George (57), Nechako (56), Quesnel (28), Burns Lake (55), Peace River South (59), Smithers (54), and Peace River North (60). This area accounted for over 96 per cent of all in-patient cases (excluding newborns) at PGRH (1986-87 to 1988-89).

The 1986 census reported the populations of the seven LHAs comprising the main referral catchment of PGRH, whereas the Central Statistics Bureau (CSB) provided estimates for 1989. In 1986, the population totalled 202,239 and the 1989 estimate was 195,664. However, the population is forecast to grow by 40,000 or 20.6 per cent during the period 1986 to 2001.

Distribution by Age and Sex. The distribution of catchment population by

age and sex is an important indicator of demand for hospital services. Among adults aged 15 to 44 years, women have a higher rate of hospitalization than men, and the most frequent reasons are related to pregnancy and childbirth. For older adults, aged 45 to 64 years, heart disease is a frequent cause of hospitalization. The elderly have both a higher frequency of in-patient treatment and a longer average length of stay in hospital.

The median age of the population in LHA 57 was 27.9 years in 1986 and is expected to rise to 29.7 years by 2001. The "elderly dependency" ratio (i.e., the ratio of population aged 65 or older relative to the population aged 15 to 64 years) in the Prince George area is also much lower than the province overall. In 1986, this ratio was only 75 per thousand, less than a third of the B.C. rate of 247 per thousand.

In summary, the population of the PGRH catchment area could be characterized as considerably younger than the provincial average, with relatively more adult males, and relatively fewer seniors. However, the local and regional forecasts show a relative decline in juvenile population and an increase in the age groups 45 years and older.

3.2 Natality, Mortality and Morbidity

Natality. The crude birth rate is expected to rise slightly from 18.0 per thousand or 1,655 total births in 1985-86 to 18.7 per thousand or 1,971 total births in 2000-01. The average age of mothers giving birth tended to be lower in the Northern Interior Health Unit (NIHU) than in all of B.C. -- 39 per cent of mothers giving birth in NIHU were younger than 25 years. In addition, the study found that the frequency of low birth weight babies in the NIHU during 1987 was above the B.C. rate.

Mortality. The study also found that the rate of stillbirths and infant mortality tended to be higher in the NIHU than the provincial rate. The rate of stillbirths averaged 9.6 per thousand births from 1978 to 1987, but only 7.6 for B.C. The crude death rate was 4.2 in LHA 57 in 1986 and it is expected to rise to 4.6 by 2001, an indication of a proportional shift in population to older age groups with higher mortality.

Potential years of life lost (PYLL) is an estimate of the effect of particular causes of early death. Thus, the earlier death occurs, the greater the PYLL. In the Northern Interior Health Unit (NIHU) in 1986, the three leading causes of PYLL among 237 males dying of specified causes were motor vehicle accidents (22.6 per cent), cancer (12.9 per cent), and ischaemic heart disease (12.5 per cent). Among 107 female deaths, the three greatest causes of PYLL were cancer (29.8 per cent),

motor vehicle accidents (19.7 per cent), and suicide (8.5 per cent).

Morbidity. The four most frequent primary diagnoses in cases of hospitalization in Prince George LHA in 1987 were: complicated pregnancy, injury or poisoning, respiratory disease, and digestive disease. The same classes of primary diagnosis were among the 12 most commonly associated with hospitalization in both Prince George LHA and B.C. overall, although their ranking differed.

The stage I study also found that the incidence of hospitalization attributable to these same 12 classes had risen by 1,114 cases per 100,000 population or 7.2 per cent since 1983. It was suggested that the rate of acute care hospitalization may reflect a lack of suitable alternatives for appropriate health care in the community. The incidence of patient referrals to mental health out-patient services was higher, relative to population, in the Cariboo Development Region than the provincial rate. This confirms the views expressed in interviews and community meetings to the effect that improving access to mental health care was an important challenge for planners in the region.

3.3 Hospitalization Referral Patterns

The discussion here takes two approaches: the location of hospitals in which residents of the particular LHAs were treated and the source of PGRH in-patients by LHA of residence. Three years of hospitalization statistics were examined to analyse the location of in-patient acute care hospital treatment for residents of the PGRH regional catchment area. Of 11,186 cases in LHA 57, 81.3 per cent were treated at PGRH, while 8.6 per cent were treated at community hospitals in McBride and Mackenzie.

Residence of PGRH In-patients. Data for 1987-88 indicate that four out of five (80.3 per cent) Prince George Regional Hospital acute care in-patients came from the Fraser-Fort George Regional Hospital District. Although these statistics suggest a significant regional referral rate for PGRH, the hospital is situated close to the borders of neighbouring regional health districts and some residents in these areas may consider PGRH as their community hospital. Seven LHAs account for at least 96 per cent of PGRH in-patient cases and patient days each year.

Source of Admissions. Approximately one-fifth of PGRH acute care in-patient cases in 1987-88 might be considered referral patients from the primary care of other northern hospitals. Delineation of the secondary care, referral aspect of that role is less clear. About one-eighth of PGRH acute care cases, in the period reviewed, came from the neighbouring LHAs of Nechako, Quesnel and Burns Lake.

British Columbia

Map of Major Referral Centres (1987 to 1989)

Prince George Regional Hospital

Table I

HOSPITALS IN PGRH CATCHMENT AREA

Regional District/ Municipality	LHA	Pop'n (1986)	Hospital Beds			Km. to PG
			Acute	Infnt	Extend	
Fraser-Ft. George		89,337				
Prince George	57	67,621	296	44	72	
Mackenzie	"	5,542	12	4		190
McBride	"	592	16	4	1[1]	210
Valemount	"	1,161	D&T			290
Cariboo		60,473				
Quesnel	28	8,358	60	22	40	120
Williams Lake	27	10,280	84	18	25	240
100 Mile House	"	1,692	37	7	10[2]	330
Bulkley-Nechako		37,470				
Vanderhoof	56	3,505	45	8		100
Fort St. James	"	1,983	25	4		160
Fraser Lake	"	1,182	D&T			160
Burns Lake	55	2,126	36	12	6	226
Houston	54	3,905	D&T			307
Smithers	"	4,713	44	10	4[3]	371
Peace River		51,996				
Dawson Creek	59	10,544	84	10		412
Chetwynd	"	2,774	18	4		310
Tumbler Ridge	"	4,387	D&T			405
Pouce Coupe	"	813	Nil		54	420
Fort St. John	60	13,355	85	19		464
Hudson's Hope	"	1,158	D&T			375

1 + 4 Intermediate Care 2 + 20 Intermediate Care

3 Discharge Planning Unit

Clearly, the Bulkley-Nechako and Cariboo Regional Hospital Districts were, overall, the greatest regional sources of referral patient service (measured in terms of fees generated) for specialists based in Prince George. In these terms, the most significant regional referral service was provided in the specialties of pathology and bacteriology, radiology, internal medicine, obstetrics and gynaecology, orthopaedic surgery, general surgery, ophthalmology, and urology.

Survey of Referring Physicians. In December 1989, PGRH sent a questionnaire to physicians in the region who had used the hospital's referral services. Responses about referral practices varied among respondents and among services, but the overall results indicated an inclination to refer patients to Prince George in the case of well-established services that have been consistently available over a period of years. Apart from geographic considerations, the practice of referral elsewhere was, apparently, related to lack of awareness of or perceived inconsistency in admission criteria and availability of some clinical services. Perhaps most remarkable in the responses was an apparent lack of awareness of the current state of referral services.

3.4 Related Health Services

Acute Care Hospital. Within the regional catchment area of PGRH there are several autonomous, acute care hospitals providing various primary, community-level services for local residents. Table I, page 11, illustrates hospitals in the catchment area.

These surrounding community hospitals share the regional "market" for hospital services. These hospitals are funded by the Ministry of Health and operated by independent, non-profit societies. With the exception of G.R. Baker Memorial at Quesnel, they have tended to operate at relatively low occupancy rates - some at 50 per cent or less.

Extended Care and Intermediate Care. Extended care hospital services provide care for patients with chronic conditions requiring 24-hours professional care and medical supervision, but not the full resources of an acute care institution. The 72-bed Jubilee Lodge extended care unit at PGRH is the largest such facility in the region.

Intermediate care facilities provide professionally supervised long-term residential care for persons who, because of chronic or progressive health impairment, are not able to function independently in the community. Licenced facilities in the PGRH main catchment area, Prince George City, include: the Prince George Senior Citizens' Society -- Parkside (61 beds) and Rainbow Hostel (40); and the Simon Fraser Lodge (89). Additionally,

McBride Hospital has four beds, Omineca Lodge in Vanderhoof has 35 and the Dunrovin Park facility in Quesnel has 40 beds. Frequently, the extended and intermediate care facilities in the PGRH catchment operate at full capacity and with substantial waiting lists for placement.

Community Health Care. The services which the health units provide to communities may include home nursing care, community physiotherapy, public health nursing, speech and hearing care, and nutritionist service. Some of these services may be developed as substitutes or supplements for hospital-based care. The Emergency Health Services Commission operates the provincial ambulance service to provide patient transport and emergency pre-hospital care from ambulance stations in many communities.

FIVE-YEAR PROFILE

The purpose of this profile is to provide the hospital with a high level assessment of how the expected demographic changes outlined in the previous sections will affect the hospital over the next five years (1991 to 1996).

Between 1991 and 1996, the population of the main catchment area will increase by 10 per cent. The largest increase in absolute terms will occur in LHA 57 which will grow by approximately 8,000 or 9 per cent. The largest in percentage terms is LHA 56 which will grow by 3,200 or 21 per cent.

Absolute growth is predicted for all age groups except children under 15 years of age, for which a 3.3 per cent decline is predicted. However, the 15 to 44 age group will be the largest group and will represent 49 per cent of the total population. The population in the next five years is therefore characterized as growing and aging. In 1987, the highest rate of hospitalization for the total population was due to complicated pregnancy. This should continue to be expected due to the increase in the birth rate.

The median age of death will increase from 65 years in 1986 to 68.1 years in 2001. In total, 69 per cent of deaths from specified causes are associated with known risk factors of lifestyle such as alcohol abuse, smoking, inadequate nutrition and lack of fitness. If no attempt is made to address these problems through promotion and prevention programs, this trend will continue.

TRENDS AND CHALLENGES

Strategic planning is a process of formulating a statement of preferred direction for an organization, and involves some systematic assessment of factors likely to affect the organization within the future time horizon being considered. This section summarizes

some significant trends and challenges discernible in the external and internal environment of the Prince George Regional Hospital.

5.1 Demographic Growth

The population of the PGRH community catchment area (LHA57) is expected to grow by 5.7 per cent in the ten-year period from 1986 to 1996. The cumulative growth to the year 2001 is projected to be as high as 22.7 per cent. Similarly, for the regional catchment area, the population in 1996 is predicted to be only 6.1 per cent greater than 1986, but could be 20.6 per cent more by 2001. If current hospitalization patterns persist and the increased growth to 2001 occurs, additional capacity is likely to be required.

Age Distribution. The population distribution among age groups is expected to change considerably. Greatest growth in numbers and proportion for both areas is expected among the group of mature adults (45 to 64 years). The seniors group is also expected to grow more than proportionally. While paediatric utilization would be slightly lower than the current level, the utilization by seniors would virtually double. If current patterns persist, these demands would far exceed the hospital's existing service capacity. It is essential that the hospital develop means to monitor service utilization by population segments and hospital resource requirements by clinical service parameters.

5.2 Health Care

A number of changes have been occurring in predominant patterns of disease in British Columbia. Increasingly prominent today are illnesses with complex origins in genetic, environmental and lifestyle factors, often requiring lengthy, complex treatment to control. There is an increasing emphasis on community-based, as opposed to institutional, care of those with chronic, disabling conditions. A new emphasis on wellness, health promotion and disease prevention requires interventions directed to whole populations, not only individual patients. Increasingly sophisticated and expensive technology is raising expectations from the public and health care professionals.

5.3 Government Policy

Government policy profoundly influences Canadian hospitals. The provincial government has a constitutional responsibility for health care and it has appointed a commission to examine health care issues and costs. The Ministry of Health now urges hospitals to implement effective utilization

management and cost controls to optimize the benefits from limited acute care resources.

5.4 Human Resources

Particularly in the northern interior of British Columbia, acute care hospitals are hampered by persistent shortages of skilled health care personnel. Persistent, deliberate efforts will be required to deal with the challenge of turnover and difficult recruitment for positions in the north. At the same time, efforts must be made to join other northern health employers in collaborative strategies to address these problems. First attention should be directed to filling identified gaps in medical staff, so as to strengthen existing services and provide adequate back-up for current staff.

5.5 External and Internal Factors

The Stage I Cariboo Health Study indicated that a number of health care interests in the region had identified a growing need to co-ordinate among themselves the planning and delivery of health services. A challenge for the hospital will be to continue to fulfil a leadership role in this process. The hospital has a unique and invaluable part to play in the shared development and use of a regional health planning database and planning processes. Internally, Prince George Regional Hospital will be challenged to continue to adapt its organizational framework and management processes.

THE ROLE OF THE PRINCE GEORGE REGIONAL HOSPITAL

The two major determinants of the role of the hospital are its mission statement and the external forces. The hospital's mission is to provide all of its patients with a level of care responsive to their needs, appropriate to the community and regional referral roles of the hospital, and within the limitations of the resources of the institution. External forces include factors such as demographics, health care trends, government policies and human resources.

Community-based acute care institutions have traditionally been designated to address the local population's health care needs. The Prince George Regional Hospital is facing a number of challenges that should cause this role to be re-defined. They include increasing consistency in the offering of clinical services; marketing the services; recognizing an increasing emphasis on regionalization; providing services to a growing population with increasing numbers of elderly; managing rising health care costs; serving a population which has increasingly sophisticated demands for health care; enhancing recruitment and retention programs;

meeting the continuing education needs; and planning, co-ordinating and delivering health care in areas where topography and climate generate many difficulties.

In response to these challenges, the Prince George Regional Hospital must, as part of its strategy, increase patient referrals from the catchment area of the north central interior of British Columbia, and develop programs that fit with the health care trends and needs of the population. The hospital, for planning purposes, must re-define and re-focus four program areas: acute care in-patient programs; ambulatory programs; rehabilitative programs; and extended care programs. The Prince George Regional Hospital needs to re-focus its in-patient acute care from mainly community and primary care to include more regional referral and secondary care.

STRATEGIC INITIATIVES

Eight strategic initiatives must be pursued to meet the challenges described in the previous material, and for the hospital to fulfil its role and mission. Each initiative is accompanied by a set of actions that help realize those initiatives.

7.1 Regional Health Services Coordination Council

The co-ordination of services provided by the variety of health care agencies is vital if patients are to receive more flexible access to a wider variety of services. It is recommended that the Prince George Regional Hospital work toward the establishment of a regional health services co-ordination council.

In support of this initiative, the hospital should: explore all available avenues for participating in Prince George community-based health care services planning-co-ordination committees; identify a hospital role on such committees, and appoint representatives; and initiate exploratory meetings with a view to establishing a regional health services co-ordination council.

Such a council could provide input into: acute care planning, continuing care and extended care; planning and co-ordination of rehabilitation; co-ordination of manpower planning; co-ordination of referrals; regional recruitment and retention; co-ordination of programs for preventative health care; gathering and reviewing of information; and co-ordination of identification of ongoing educational needs.

The hospital must ensure a system is in place to review and evaluate the role, mandate and impact of the council.

7.2 Planning The Regional Role

The hospital will gather and review information appropriate to ensure

effective planning in order to meet the changing needs of the population. The Prince George Regional Hospital will need to: identify programs and services offered as part of its referral role; identify resource planning needs; put into place a mechanism whereby specific program and services are evaluated; plan and co-ordinate with the Ministry of Health and the council if established; and over the next year, ascertain the possibility of establishing consultative mobile services.

7.3 Identify Referral Sources

The hospital must clearly identify referral sources and work closely with such sources. Prince George Regional Hospital needs to: enhance relations with local community hospitals by initiating regular meetings; enhance relations with physicians by identifying physicians who are presently, and who could potentially, refer patients to the hospital (the hospital needs to develop and offer, on a consistent basis, physician consultation services); enhance relations with community health care agencies by identifying regional community agencies which should be aware of programs and services offered at the hospital. The hospital will provide written information on a regular basis to hospitals, physicians and these health care agencies.

7.4 Developing Centres of Excellence at the Hospital

The hospital should target the development of centres of excellence. As a start, it could initiate this concept in the areas of perinatal, psychiatry and trauma services and then address the area of continuing education. This will involve developing a reputation for high standards of care, good community and regional working relationships and securing additional medical and other health care professionals with expert knowledge.

The hospital needs to: put into action its plan for multi-disciplinary steering committees for the perinatal, psychiatry and trauma services; expand the committees, when established, to include regional input; take on a leadership role in these three clinical services, develop and implement, for all three clinical services; standards of care, educational offerings, research activities, consultative services with outreach programs, public relations programs, specific manpower and recruitment; and seriously consider a fourth centre of excellence (continuing education), and if supported begin to develop such programming within the next year.

7.5 Medical Services and Clinical Program Development

Previous sections have identified the need for the hospital to re-define its dual role as a community and regional referral hospital. In order to meet this challenge, the hospital must detail the

programs and services presently offered.

It should pursue the following initiatives: put into action a plan which will promote effective utilization of acute care beds; continue to develop ambulatory care services and programs which involve more emphasis on multi-disciplinary services and programs including emphasis on health promotion and education; ensure that medical services and programs have a mandate to include a rehabilitative focus; and re-define its extended care services to ensure it offers palliative care, respite care and possibly geriatric day-care services.

In order to meet these strategies, the hospital must: over the next 12 months, develop and implement utilization plans to ensure the most cost-effective utilization of its acute care services (as a part, the hospital must, over the next six months, develop, implement and evaluate a hospital-wide discharge planning program); plan, implement and evaluate more multi-disciplinary ambulatory care programs (functional planning for centralization of ambulatory services needs to be initiated); work immediately to complete development and implementation of five rehabilitation programs in the areas of head injuries, cerebrovascular accidents, arthritis, orthopaedic surgery, MS and other progressive diseases; and re-activate plans for specific palliative care beds to include identification of appropriate space, bed numbers, programming and staffing. The hospital will need to plan immediately for an increase in its extended care services, as well as develop a geriatric assessment program.

7.6 Recruitment and Retention

The hospital must maintain an effective short-term and long-term human resource plan for medical and non-medical staff. To meet this strategy, the hospital needs to: begin a process of clearly defining roles and responsibilities of its medical staff (to be effective, this information must be communicated across the internal organization of the hospital); maintain present recruitment programs for non-medical staff, and over the next six months, develop a human resource plan indicating the resource needs and expected deficits in relation to planned program and service changes; and begin to explore cost-effective retention programs for medical and non-medical staff.

The hospital must begin immediately to develop more ongoing education opportunities in Prince George which would be more cost-effective than travelling outside.

7.7 Management Processes

The proposed role of the hospital and the previously identified strategic initiatives and actions will require the hospital to re-examine its current

organizational structure. The hospital must ensure that organizational structure and management processes are reviewed regularly and related to an assessment of physical plant needs and/or changes.

It is recommended that the administration, with medical staff input and board approval, review the organizational structure immediately. The hospital should develop a system to collect and analyse ongoing information in relation to the population demographics, referral patterns, and utilization of hospital resources. It is recommended that the hospital undertake and implement a redevelopment program for its physical plant within the next six to 12 months and, in order to become more efficient, the hospital must explore opportunities to reduce or re-allocate costs.

7.8 Marketing Medical Services and Clinical Programs

The report proposes numerous initiatives, that if acted upon, will change the hospital both structurally and in the delivery of medical and clinical programs. The users, referral sources and other key stakeholders, must be informed of these benefits if they are to take advantage of them. To achieve this, PGRH must develop a marketing plan which is sensitive to the needs and aspirations of the smaller hospitals in the referral area.
The message must be informative and identify, in a cooperative manner, a process by which the stakeholders can participate. The plan should describe the role of the hospital, explain the enhancements, and identify the benefits.

To make the marketing plan operational, it is recommended that responsibility for developing the plan be assigned to a senior staff member. Suggested promotional ideas include expanding the PGRH Referral Service Directory, initiating community hospital days, and inviting selected people or groups to the hospital to explain how the medical needs are being met.

EVALUATION CRITERIA

It is recommended that the hospital establish evaluation criteria and utilize these to measure how well it is succeeding in attaining the preceding strategic initiatives and recommended courses of action.

TWO-YEAR PLAN

A two-year plan of action illustrated in the gantt chart, Appendix I, depicts the potential start and completion dates for the preceding eight initiatives. The major points of focus are:

1. regional health services coordination council;

2. planning the regional role;
3. identifying referral sources;
4. developing centres of excellence;
5. medical service and clinical programs;
6. recruitment and retention;
7. management process; and
8. marketing medical services and clinical programs.

CONCLUDING STATEMENT

This report was produced as a summary of a larger reference document. The style of writing and level of detail is often paraphrased and yet it should provide sufficient scope to identify the challenges faced by the Prince George Regional Hospital.

Although many of the strategies and actions are recommended to occur over a two-year period, the plan could be adjusted to accommodate alternate start and finishing dates. This would recognize the availability of hospital resources which can be devoted to the plan.

The consultants have recommended a number of initiatives. By following those initiatives, the hospital will make real progress towards providing the optimum level of health care to the population in the north central interior of British Columbia.

Appendix I

Gantt Chart of Projected Action Steps Over Two Years